

AMENDMENTS TO THE CLAIMS

Please cancel claim 24 without prejudice or disclaimer of its underlying subject matter.

Please amend the claims as follows.

1-3. (canceled)

4. (previously presented) A key pad comprising:

a translucent key sheet and a plurality of resin key tops arranged on the key sheet, the key pad being provided on a substrate on which a circuit component is mounted, the circuit component protruding from a surface of the substrate,

wherein a resin key top of the resin key tops has a flange portion, the flange portion outwardly protruding from a lower end side surface of the resin key top,

wherein the flange portion has a clearance portion for avoiding contact with the circuit component under depression of the resin key tops, and

wherein the accommodating portion of the circuit component is a leg portion floatingly supporting the resin key top mounting portion of the key sheet so as to be capable of moving toward and away from a substrate surface opposed to the key sheet back surface.

5-8. (canceled)

9. (previously presented) A resin key top injection mold comprising a key top forming portion and a runner portion communicating with the key top forming portion, the key top forming portion and the runner portion defining a cavity,

wherein the resin key top injection mold further comprises a resin relief protrusion formed at an entrance that serves as a boundary between the key top forming portion and the runner portion and protruding from a surface of the cavity, the resin relief protrusion being smaller in width than the entrance and having a molding surface that is convex toward the key top forming portion, and

wherein the molding surface has a configuration in conformity with an outer configuration of an interference member, the interference member having at least its upper portion situated within a displacement region where a bottom surface edge of the resin key top undergoes displacement upon depression.

10. (original) A resin key top injection mold according to claim 9, wherein the resin relief protrusion is formed in a pin member protruding in the cavity at the entrance, and pin holes allowing detachable attachment of a plurality of pin members are formed.

11. (original) A resin key top injection mold according to claim 9, wherein the entrance of the resin key top injection mold is wider on the key top forming portion side and narrower on the runner portion side.

12. (original) A resin key top injection mold according to claim 9, wherein an air vent portion communicating with the runner portion is formed.

13. (previously presented) A resin key top manufacturing method in which a molten resin is poured into a cavity of a resin key top injection mold having a key top forming portion, the method comprising the steps of:

obtaining a molded piece by pouring a molten resin into the cavity of the resin key top injection mold, allowing the molten resin to solidify to obtain a solidified resin, and releasing the solidified resin from the resin key top injection mold, the cavity having formed therein:

at least one of an upstream side runner portion situated between a resin injection hole and the key top forming portion and a downstream side runner portion situated between the key top forming portion and an air vent portion; and

a resin relief protrusion formed at an entrance that serves as a boundary between the key top forming portion and the at least one of the upstream side runner portion and the downstream side runner portion, the resin relief protrusion being smaller in width than the entrance, having a molding surface that is convex toward the key top forming portion, and having a configuration in conformity with an outer configuration of an interference member, the interference member having at least its upper portion situated within a displacement region where a bottom surface edge of the resin key top undergoes displacement upon depression; and

forming the resin key top having a clearance portion formed in a side surface thereof by removing the upstream side runner portion from the molded piece, the clearance portion having a configuration in conformity with outer configuration of an interference member that has at least its upper portion situated within the displacement region where the bottom surface edge of the resin key top undergoes displacement upon depression.

14. (original) A resin key top manufacturing method according to claim 13, wherein the resin key top injection mold is used, which has the resin relief protrusion being formed in a pin member protruding in the cavity at the entrance of the key top forming portion and the runner portion, and has pin holes allowing detachable attachment of a plurality of pin members being formed.

15. (original) A resin key top manufacturing method according to claim 13, wherein the resin key top injection mold is used, which has the entrance of the resin key top injection mold being wider on the key top forming portion side and narrower on the runner portion side.

16. (original) A resin key top manufacturing method according to claim 13, wherein the resin key top injection mold is used, which has the air vent portion communicating with the runner portion being formed.

17-20. (canceled)

21. (currently amended) A pushbutton switch device comprising:

a key pad having a plurality of resin key tops arranged on a translucent key sheet; and

a circuit board which is arranged below the key pad and on which a circuit component serving as an illumination source is mounted, the circuit component protruding from a surface of the circuit board,

the resin key tops being pressed toward the circuit board to effect an input operation with the resin key tops,

wherein the circuit component is being caused to emit light to illuminate the resin key tops,

wherein a resin key top of the resin key tops has a flange portion, the flange portion outwardly protruding from a lower end side surface of the resin key top, and

wherein the flange portion has a clearance portion for avoiding contact with the circuit component under depression of the resin key tops, the clearance portion exposing a portion of the circuit component, and

wherein the accommodating portion of the circuit component is a leg portion floatingly supporting the resin key top mounting portion of the key sheet so as to be capable of moving toward and away from a substrate surface opposed to the key sheet back surface.

22. (previously presented) A pushbutton switch device according to claim 21, wherein the circuit component is a protrusion protruding from a general surface of a surface of the key sheet.

23. (previously presented) A pushbutton switch device according to claim 21, wherein the accommodating portion of the circuit component formed in the key sheet is a protrusion protruding from a general surface of a surface of the key sheet.

24. (canceled)

25. (previously presented) A pushbutton switch device according to claim 21, wherein the clearance portions are of a configuration in conformity with an outer configuration of the interference members.

26. (previously presented) A pushbutton switch device according to claim 21, wherein the clearance portions are of a configuration in which the wall thickness is reduced entirely along a height direction of the portion of the resin key top where it is formed.

27. (previously presented) A pushbutton switch device according to claim 21, wherein the clearance portions are of a configuration in which the wall thickness is reduced only in a lower portion along a height direction thereof.

28. (previously presented) A pushbutton switch device according to claim 21, wherein the flange portion is adapted to engage with the back surface of a casing.